

**REMARKS/ARGUMENTS*****Status of Claims***

Claims 1-29, 31-54, and 56-67 are pending in this application.

Applicants hereby request further examination and reconsideration of the presently claimed application.

***Election/Restriction***

In the previous response to restriction, Applicants elected the invention of Group I, claims 1-74 and the species of Structure I. As further noted in the previous response, claims 1-13, 15-39, and 41-67 encompass the elected species. In particular, the species of Structure I is generic to structures III, IV, VI, and VII. As discussed herein, the claims drawn to Structure I are allowable, and thus Applicants respectfully request rejoinder of the remaining non-canceled, withdrawn claims on the basis that there is now an allowable generic claim.

***102 Rejection***

Claims 1-12, 20-22, 25-29, 31, 32, 35-38, 46-54, 56, 57, 60-64, and 67 stand rejected under 35 USC 102(e) as being anticipated by *De Boer* (US 7,049,442). According to MPEP § 2131, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Applicants previously amended independent claims 1 and 36 to recite “wherein the effluent comprises a diluent and wherein said diluent comprises 1-butene, 1-dodecene, 1-tetradecene, 1-hexadecene, 1-octadecene, or combinations thereof.” Applicants note that the Examiner did not specifically address this amendment in the February 7, 2008 Office Action, nor did the Examiner specifically point out where *De Boer* teaches or suggests a diluent comprising 1-butene, 1-dodecene, 1-tetradecene, 1-hexadecene, 1-octadecene, or combinations thereof. However, in the interest of substantively

advancing prosecution in this matter, Applicants direct the Examiner's attention to the following passage of *De Boer* at col. 10, lines 20-26 (emphasis added):

“The oligomerisation reaction is carried out in the presence of an inert solvent which may also be the carrier for the catalyst and/or feed olefin. Suitable solvents include alkanes, alkenes, cycloalkanes, and aromatic hydrocarbons. For example, solvents that may be suitably used according to the present invention include hexane, isooctane, benzene, toluene, and xylene.”

As can be seen from this passage, *De Boer* unequivocally states that the oligomerization is carried out in the presence of an inert solvent. In contrast, Applicants have selected and claimed specific solvents/diluents (i.e., 1-butene, 1-dodecene, 1-tetradecene, 1-hexadecene, 1-octadecene, or combinations thereof) that may undergo reaction during the oligomerization process, and therefore become incorporated into the product olefins. Example 2 of the present application demonstrates that the diluent selected and recited in the independent claims is reactive rather than inert. More specifically, entry number 8 in Table 2 uses 1-butene as the solvent. As shown in rows 14 and 17 of Table 2, the use of 1-butene as solvent produces 0.47 percent C6 branched alpha-olefin and 0.83 percent C8 branched alpha-olefins, respectively. The values of 0.47 percent C6 branched alpha-olefin and 0.83 percent C8 branched alpha-olefins are higher than any of the corresponding values for entries 1-7 and 9, which used cyclohexane (C<sub>6</sub>H<sub>12</sub>) as the diluent. Cyclohexane is a saturated compound, and thus is an inert solvent/diluent in the oligomerization reaction. The increase in branching using 1-butene (in contrast to cyclohexane, an inert) clearly establishes that the diluents selected by Applicants and recited in independent claims 1 and 36 are reactive rather than inert as required by *De Boer*. It is well settled that “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.” MPEP § 2141.02 citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) (emphasis theirs). Accordingly, Applicants

respectfully submit that *De Boer* does not teach or suggest independent claims 1 and 36, or any of the remaining claims depending therefrom.

### ***103 Rejection***

Claims 23, 24, 65, and 66 stand rejected under 35 USC 103(a) as being unpatentable over *De Boer*. Claims 33, 34, 58, and 59 stand rejected under 35 USC 103(a) as being unpatentable over *De Boer* in further view of *Takeda* (US 5,830,955). ). The “proper application of *Graham*” begins with a determination of whether the cited prior art contains all the elements of the contested claims. See *Graham v. John Deere Co. of Kansas City*, 383 U.S. at 22 (an obviousness determination begins with a finding that “the prior art as a whole in one form or another contains all” the elements of the claimed invention.). As explained with regard to the Section 102 rejections above, *De Boer* does not teach or suggest each and every element of independent claims 1 and 36, and thus likewise does not teach or suggest each and every element of claims 23, 24, 33, 34, 58, 59, 65, and 66 depending therefrom. Thus, the pending claims are now in condition for allowance.

### CONCLUSION

Consideration of the foregoing amendments and remarks, reconsideration of the application, and withdrawal of the rejections is respectfully requested by Applicants. No new matter is introduced by way of the amendment. It is believed that each ground of rejection raised in the Office Action dated February 7, 2008 has been fully addressed. If any fee is due as a result of the filing of this paper, please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C., Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefore.

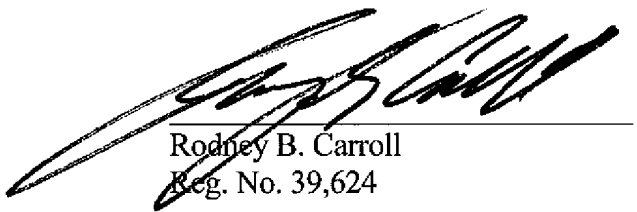
If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, the Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,  
CONLEY ROSE, P.C.

Date:

5-6-08

5601 Granite Parkway, Suite 750  
Plano, Texas 75024  
Telephone: (972) 731-2288  
Facsimile: (972) 731-2289



Rodney B. Carroll  
Reg. No. 39,624

ATTORNEY FOR APPLICANTS